

## Cooperative AF Scheme for Multi Source and Terminal in Edge of Cell Coverage

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**Abstract :** This paper proposes a cooperative communication scheme for improve wireless communication performance. When the receiver is located in the edge of coverage, the signal from the transmitter is distorted for various reasons such as inter-cell interference (ICI), power reduction, incorrect channel estimation. In order to improve communication performance, the proposed scheme adds the relay. By the relay, the receiver has diversity gain. In this paper, two base stations, one relay and one destination are considered. The two base stations transmit same time to relay and destination. The relay forwarding to destination and the destination detects signals.

**Keywords :** cooperative communication, diversity gain, OFDM, MMSE

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